

WHAT IS CLAIMED IS:

1. A method of forming a heat stable oil-in-water emulsion comprising:
 - providing a selected amount of an aqueous component;
 - heating the aqueous component to a temperature sufficient to avoid whipping and churning of the aqueous component when shear is applied;
 - adding a selected amount of a solids component to the aqueous component under agitation to form a first intermediate;
 - heating a selected amount of a fat containing component to a temperature sufficient to melt a sufficient amount of the fat containing component so that the fat containing component becomes fluid;
 - adding an emulsifier either to the aqueous component or to the fat containing component or both;
 - adding the heated fat containing component to the first intermediate with sufficient agitation to disperse the added fat containing component in the first intermediate to form a second intermediate;
 - homogenizing the second intermediate at between about 250 psig and 5000 psig to form the heat stable oil-in-water emulsion comprising at least 20 weight percent fat.
2. The method of claim 1 and wherein the fat is heated to between about 100 °F and 150 ° F.
3. The method of claim 1 and wherein the second intermediate is heated for a selected period of time

4. The method of claim 3 and wherein the second intermediate is homogenized at a temperature sufficient to maintain the fat containing component in a fluid condition.
5. The method of claim 4 and wherein the second intermediate is pasteurized.
6. The method of claim 1 wherein the aqueous component comprises a cream.
7. The method of claim 1 and wherein the aqueous component comprises about 40 weight percent fat.
8. The method of claim 1 and wherein the solids component comprises buttermilk solids.
9. The method of claim 8 and wherein the selected amount of buttermilk solids component is between about 3 and 10 weight percent of the heat stable oil-in-water emulsion.
10. The method of claim 1 and wherein the solids component comprises whey solids.
11. The method of claim 10 and wherein the selected amount of whey solids component is between about 3 and 10 weight percent of the heat stable oil-in-water emulsion.
12. The method of claim 1 and wherein the solids component comprises soy protein solids.

13. The method of claim 12 and wherein the selected amount of soy protein solids component is between about 0.5 and 10 weight percent of the heat stable oil-in-water emulsion.
14. The method of claim 1 and wherein the fat containing component comprises milk fat.
15. The method of claim 1 and wherein the fat containing component comprises vegetable oil.
16. The method of claim 1 and wherein the fat containing component comprises milk fat and vegetable oil in combination.
17. The method of claim 1 and wherein the fat containing component comprises anhydrous milk fat.
18. The method of claim 17 and wherein the selected amount of anhydrous milk fat is an amount sufficient to provide a heat-stable oil-in-water emulsion comprising at least about 20% fat.
19. The method of claim 17 and wherein the selected amount of anhydrous milk fat is an amount sufficient to provide a heat-stable oil-in-water emulsion comprising at least about 40% fat.
20. The method of claim 1 and wherein the fat containing component comprises butter.

21. The method of claim 20 and wherein the selected amount of butter is above about 5 weight percent.
22. The method of claim 1 and wherein the fat containing component comprises vegetable oil.
23. The method of claim 22 and wherein the selected amount of vegetable oil is above about 5 weight percent
24. The method of claim 1 and further comprising adding stabilizers to the heated aqueous component.
25. The method of claim 1 and further comprising adding enhancing ingredients to the aqueous component.
26. The method of claim 1 and further comprising adding enhancing ingredients to the fat containing component.
27. The method of claim 1 and further comprising adding enhancing ingredients to the first intermediate
28. The method of claim 1 and further comprising adding enhancing ingredients to the second intermediate.
29. The method of claim 1 and further comprising adding enhancing ingredients to the finished heat stable oil-in-water emulsion.
30. The method of claim 1 and further comprising cooling the stable oil-in-water emulsion to between about 30°F and 70 °F.

31. The method of claim 1 and further comprising hot filling the heat stable oil-in-water emulsion at a temperature of about 170 ° F and about 210 °F.
32. The method of claim 1 and further comprising adding a selected amount of cheese to the oil-in-water emulsion to form a dairy-based cheese sauce.
33. The method of claim 1 and further comprising adding a selected amount of cheese to the oil-in-water emulsion to form an alfredo sauce.
34. The method of claim 33 and wherein the selected amount of cheese is between about 10 and 25 weight percent of the alfredo sauce.
35. The method of claim 1 and further comprising adding a selected amount of lemon juice and a selected amount of egg yolk or egg flavor to the oil-in-water emulsion to form a hollandaise sauce.
36. The method of claim 1 and further comprising adding a selected amount of citric acid to the oil-in-water emulsion to form a hollandaise sauce.
37. The method of claim 35 and further comprising adding a selected amount of citric acid to the oil-in-water emulsion to form a hollandaise sauce.
38. The method of claim 35 and wherein the selected amount of lemon juice is between about 3.0 and 12.0 weight percent of the hollandaise sauce.

39. The method of claim 37 and wherein the selected amount of lemon juice is between about 3.0 and 12.0 weight percent of the hollandaise sauce.
40. The method of claim 1 and further comprising adding butter to form a butter sauce.
41. A method of forming a heat stable dairy based sauce comprising:
providing a selected amount of an aqueous component;
heating the aqueous component to a temperature sufficient to avoid whipping and churning of the aqueous component when shear is applied;
adding a selected amount of a solids component to the aqueous component under agitation to form a first intermediate;
heating a selected amount of a milk fat containing component to a temperature sufficient to melt a sufficient amount of the fat containing component so that the fat containing component becomes fluid;
adding an emulsifier either to the aqueous component or to the milk fat containing component or both;
adding the heated milk fat containing component to the first intermediate with sufficient agitation to disperse the added fat containing component in the first intermediate to form a second intermediate;
homogenizing the second intermediate at between about 250 psig and 5000 psig to form the heat stable oil-in-water emulsion comprising at least 20 weight percent fat.

42. The method of claim 41 and wherein the fat is heated to between about 100 °F and 150 ° F.
43. The method of claim 41 and wherein the second intermediate is heated for a selected period of time
44. The method of claim 43 and wherein the second intermediate is homogenized at a temperature sufficient to maintain the fat containing component in a fluid condition.
45. The method of claim 43 and wherein the second intermediate is pasteurized.
46. The method of claim 41 and wherein the aqueous component comprises a dairy cream.
47. The method of claim 41 and wherein the aqueous component comprises about 40 weight percent milk fat.
48. The method of claim 41 and wherein the solids component comprises buttermilk solids.
49. The method of claim 48 and wherein the selected amount of buttermilk solids component is between about 3 and 10 weight percent of the heat stable oil-in-water emulsion.
50. The method of claim 41 and wherein the solids component comprises whey solids.

51. The method of claim 50 and wherein the selected amount of whey solids component is between about 3 and 10 weight percent of the heat stable oil-in-water emulsion.

52. The method of claim 41 and wherein the solids component comprises soy protein solids.

53. The method of claim 52 and wherein the selected amount of soy protein solids component is between about 0.5 and 10 weight percent of the heat stable oil-in-water emulsion.

54. The method of claim 41 and wherein the milk fat containing component comprises anhydrous milk fat.

55. The method of claim 54 and wherein the selected amount of anhydrous milk fat is an amount sufficient to provide a heat-stable oil-in-water emulsion comprising at least about 20% fat.

56. The method of claim 54 and wherein the selected amount of anhydrous milk fat is an amount sufficient to provide a heat-stable oil-in-water emulsion comprising at least about 40% fat.

57. The method of claim 41 and wherein the milk fat containing component comprises butter.

58. The method of claim 57 and wherein the selected amount of butter is above about 5 weight percent.

59. The method of claim 41 and further comprising adding stabilizers to the heated aqueous component.
60. The method of claim 41 and further comprising adding enhancing ingredients to the aqueous component.
61. The method of claim 41 and further comprising adding enhancing ingredients to the milk fat containing component.
62. The method of claim 41 and further comprising adding enhancing ingredients to the first intermediate
63. The method of claim 41 and further comprising adding enhancing ingredients to the second intermediate.
64. The method of claim 41 and further comprising adding enhancing ingredients to the finished heat stable oil-in-water emulsion.
65. The method of claim 41 and further comprising cooling the stable oil-in-water emulsion to between about 30°F and 70°F.
66. The method of claim 41 and further comprising hot filling the heat stable oil-in-water emulsion at a temperature of about 170 ° F and about 210 °F.
67. The method of claim 41 and further comprising adding a selected amount of cheese to the oil-in-water emulsion to form a cheese sauce.

68. The method of claim 41 and further comprising adding a selected amount of cheese to the oil-in-water emulsion to form an alfredo sauce.

69. The method of claim 68 and wherein the selected amount of cheese is between about 10 and 25 weight percent of the alfredo sauce.

70. The method of claim 41 and further comprising adding a selected amount of lemon juice and a selected amount of egg yolk or egg flavor to the oil-in-water emulsion to form a hollandaise sauce.

71. The method of claim 41 and further comprising adding a selected amount of citric acid to the oil-in-water emulsion to form a hollandaise sauce.

72. The method of claim 71 and further comprising adding a selected amount of citric acid to the oil-in-water emulsion to form a hollandaise sauce.

73. The method of claim 71 and wherein the selected amount of lemon juice is between about 3.0 and 12.0 weight percent of the hollandaise sauce.

74. The method of claim 72 and wherein the selected amount of lemon juice is between about 3.0 and 12.0 weight percent of the hollandaise sauce.

75. The method of claim 41 and further comprising adding butter to form a butter sauce.

76. The method of 41 and wherein the aqueous component is cultured.

77. A sauce base, the sauce base comprising:
an aqueous component wherein the aqueous component comprises more than 50 weight percent moisture;
a solids component wherein the solids component comprises protein; and
a fat containing component wherein the fat containing component increases a fat concentration of the base to greater than 20 weight percent;
an emulsifier wherein the emulsifier is added to the aqueous component or to the milk fat containing component or both and wherein the aqueous component, the solids component the fat containing component and the emulsifier are added together such that the protein concentration of the base is in a range of greater than 3 weight percent and less than 10 weight percent and wherein when the base is homogenized and packaged, the base comprises an oil-in-water emulsion that is storable, heat stable and usable for a dairy based sauce having the organoleptic properties of a made from scratch dairy based sauce.
78. The sauce base of claim 77 and wherein the fat is heated to between about 100 °F and 150 ° F.
79. The sauce base of claim 77 and wherein the second intermediate is heated for a selected period of time

80. The sauce base of claim 79 and wherein the second intermediate is homogenized at a temperature sufficient to maintain the fat containing component in a fluid condition.

81. The sauce base of claim 80 and wherein the second intermediate is pasteurized.

82. The base of claim 77 and wherein the base comprises an oil-in-water emulsion that is storable.

83. The base of claim 77 and wherein the base comprises an oil-in-water emulsion that is heat stable.

84. The base of claim 77 and wherein the base comprises an oil-in-water emulsion that is freeze-thaw stable.

85. The base of claim 77 and wherein the base comprises an oil-in-water emulsion that is freeze-thaw stable.

86. The base of claim 77 and wherein a fat concentration of the base comprises between about 20 weight percent and 96 weight percent of the base.

87. The base of claim 77 and wherein a moisture concentration of the base comprises between about 35 weight percent and 50 weight percent of the base.

88. The base of claim 77 and wherein a solids non-fat content of the base is greater than three weight percent and less than or equal to 30 weight percent of the base.

89. The base of claim 77 and wherein the aqueous component comprises a cream.

90. The base of claim 89 and wherein the cream comprises about 40 weight percent fat.

91. The base of claim 77 and wherein the solids component comprises buttermilk solids.

92. The base of claim 91 and wherein the buttermilk solids comprise between about 3 weight percent and 10 weight percent.

93. The base of claim 77 and wherein the solids component comprises whey solids.

94. The base of claim 93 and wherein the selected amount of whey solids component is between about 3 and 10 weight percent of the heat stable oil-in-water emulsion.

95. The base of claim 77 and wherein the solids component comprises soy protein solids.

96. The base of claim 95 and wherein the selected amount of soy protein solids component is between about 0.5 and 10 weight percent of the heat stable oil-in-water emulsion.

97. The base of claim 77 and wherein the fat containing component comprises vegetable oil.

98. The base of claim 97 and wherein the vegetable oil comprises above about 5 weight percent of the total weight of the base.

99. The base of claim 99 and wherein the fat containing component further comprises butter.

100. The base of claim 99 and wherein the sum of the vegetable oil and the butter comprises above about 5 weight percent of the total weight of the base.

101. The base of claim 77 and further comprising stabilizers.

102. The base of claim 77 and further comprising enhancing ingredients.

103. The base of claim 77 and further comprising enhancing ingredients added to the aqueous component.

104. The base of claim 77 and further comprising enhancing ingredients added to the fat containing component.

105. The base of claim 77 and further comprising enhancing ingredients added to the first intermediate

106. The base of claim 77 and further comprising enhancing ingredients added to the second intermediate.

107. The base of claim 77 and further comprising enhancing ingredients added to the finished heat stable oil-in-water emulsion.

108. The base of claim 77 and further comprising cooling the oil-in-water emulsion with a scraped surface heat exchanger.

109. The base of claim 77 and further comprising cheese and wherein the cheese forms the base into an alfredo sauce.

110. The base of claim 109 and wherein the cheese comprises between about 10 weight percent and 25 weight percent of the weight of the alfredo sauce.

111. The base of claim 77 and further comprising lemon juice and egg flavor or egg yolk and wherein the lemon juice and egg flavor or egg yolk forms the base into a hollandaise sauce.

112. The base of claim 111 and wherein the lemon juice comprises between about 3 and 12 weight percent of the weight of the hollandaise sauce.

113. The base of claim 77 and further comprising lemon juice powder and egg flavor or egg yolk and wherein the lemon juice powder and egg flavor or egg yolk transforms the base into a hollandaise sauce.

114. The base of claim 113 and wherein the lemon juice powder comprises between about 0.03 and 0.15 weight percent of the weight of the hollandaise sauce.

115. A dairy sauce base, the dairy sauce base comprising:
an aqueous dairy cream component;
a solids component wherein the solids component comprises protein; and

a milk fat containing component wherein the milk fat containing component increases a milk fat concentration of the base to greater than 20 weight percent;

an emulsifier wherein the emulsifier is added to the aqueous component or to the milk fat containing component or both and wherein the aqueous component, the solids component and the milk fat containing component are added together such that the protein concentration of the base is in a range of greater than 3 weight percent and less than 10 weight percent and wherein when the base is homogenized and packaged, the base comprises an oil-in-water emulsion that is usable for a dairy based sauce having the organoleptic properties of a made from scratch dairy based sauce.

116. The base of claim 115 and wherein the base comprises an oil-in-water emulsion that is storable.

117. The base of claim 116 and wherein the base comprises an oil-in-water emulsion that is heat stable.

118. The base of claim 116 and wherein the base comprises an oil-in-water emulsion that is freeze-thaw stable.

119. The base of claim 117 and wherein the base comprises an oil-in-water emulsion that is freeze-thaw stable.

120. The base of claim 115 and wherein a milk fat concentration of the base comprises between about 20 weight percent and 96 weight percent of the base.

121. The base of claim 115 and wherein a moisture concentration of the base comprises between about 35 weight percent and 50 weight percent of the base.

122. The base of claim 115 and wherein a solids non-fat content of the base is greater than three weight percent and less than or equal to 30 weight percent of the base.

123. The base of claim 115 and wherein the aqueous component comprises cream.

124. The base of claim 123 and wherein the cream comprises about 40 weight percent milk fat.

125. The base of claim 115 and wherein the solids component comprises buttermilk solids.

126. The base of claim 125 and wherein the buttermilk solids comprise between about 3 weight percent and 10 weight percent.

127. The method of claim 115 and wherein the solids component comprises whey solids.

128. The method of claim 127 and wherein the selected amount of whey solids component is between about 3 and 10 weight percent of the heat stable oil-in-water emulsion.

129. The method of claim 115 and wherein the solids component comprises soy protein solids.

130. The method of claim 129 and wherein the selected amount of soy protein solids component is between about 0.5 and 10 weight percent of the heat stable oil-in-water emulsion.

131. The base of claim 115 and wherein the milk fat containing component comprises anhydrous milk fat.

132. The base of claim 131 and wherein the anhydrous milk fat comprises above about 5 weight percent of the total weight of the base.

133. The base of claim 115 and wherein the milk fat containing component comprises butter.

134. The base of claim 133 and wherein the butter comprises above about 5 weight percent of the total weight of the base.

135. The base of claim 115 and further comprising stabilizers.

136. The base of claim 115 and further comprising enhancing agents.

137. The base of claim 115 and further comprising enhancing ingredients added to the aqueous component.

138. The base of claim 115 and further comprising enhancing ingredients added to the fat containing component.

139. The base of claim 115 and further comprising enhancing ingredients added to the first intermediate

140. The base of claim 115 and further comprising enhancing ingredients added to the second intermediate.

141. The base of claim 115 and further comprising enhancing ingredients added to the finished heat stable oil-in-water emulsion.

142. The base of claim 115 and further comprising cooling the oil-in-water emulsion with a scraped surface heat exchanger.

143. The base of claim 115 and further comprising cheese and wherein the cheese forms the base into an alfredo sauce.

144. The base of claim 143 and wherein the cheese comprises between about 10 weight percent and 25 weight percent of the weight of the alfredo sauce.

145. The base of claim 115 and further comprising lemon juice and egg flavor or egg yolk and wherein the lemon juice and egg flavor or egg yolk forms the base into a hollandaise sauce.

146. The base of claim 145 wherein the lemon juice comprises between about 3 and 12 weight percent of the weight of the hollandaise sauce.

147. The base of claim 115 and further comprising lemon juice powder and egg flavor or egg yolk and wherein the lemon juice powder and egg flavor or egg yolk transforms the base into a hollandaise sauce.

148. The base of claim 147 and wherein the lemon juice powder comprises between about 0.03 and 0.15 weight percent of the weight of the hollandaise sauce.